Application No.: 09/874,163

Docket No.: JCLA7083

In The Claims:

Claim 1. (cancelled)

Claim 2. (currently amended) ~~The method according to claim 1, further comprising:~~ A method of automatically determining a type of a memory applied in a computer system, wherein the computer system comprises a system power state signal, a voltage control circuit and at least one memory module slot to accommodate a memory, the method comprising:

outputting a preset voltage to the memory;

performing an operation on the memory;

determining a type of the memory;

outputting a control signal;

outputting a voltage adjustment signal according to the control signal and the system power state signal;

outputting a configured operation voltage to the memory according to the voltage adjustment signal; and

having the system power state signal entering a low logic state when the computer system enters a STD mode, a soft off mode or a mechanical power off mode; and

having the recognition apparatus receiving the system power state signal driving the voltage control circuit to output the preset voltage to the memory.

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   Claim 3. (currently amended) ~~The method according to claim 1, further comprising~~ A

method of automatically determining a type of a memory applied in a computer system, wherein

the computer system comprises a system power state signal, a voltage control circuit and at least

one memory module slot to accommodate a memory, the method comprising:

   outputting a preset voltage to the memory;

   performing an operation on the memory;

   determining a type of the memory;

   outputting a control signal;

   outputting a voltage adjustment signal according to the control signal and the system

power state signal;

   outputting a configured operation voltage to the memory according to the voltage

adjustment signal; and

   operating the voltage control circuit according to a previous voltage adjustment signal

without changing a previously provided configured operation voltage when the computer system

enters a STR mode.

   Claim 4. (currently amended) The method according to claim 2~~1~~, wherein a processor

executes a software program to perform the operation on the memory, to determine the type of

the memory, and to output the control signal.

Claim 5. (currently amended) The method according to claim 4, further comprising

performing the operation on the memory with the software program, which software program

then determines the type of the memory when the computer system enters a reset state.

Claim 6. (currently amended) The method according to claim 2~~1~~, wherein a hardware

device performs the operation on the memory, determines the type of the memory, and outputs

the control signal.

Claim 7. (currently amended) The method according to claim 2~~1~~, wherein the operation

comprises an access operation.

Claim 8. (currently amended) A motherboard to automatically determine a type of a

memory, used in a computer system that has a system power state signal, the motherboard

comprising:

a hardware device , generating a control signal;

a memory module slot, accommodating a memory;

a voltage control circuit, coupled to the memory module slot to provide a configured

operation voltage to the memory module slot; and

a recognition apparatus, coupled to the system power state signal, the control signal and

the voltage control circuit; wherein

the voltage control circuit firstly outputs a preset voltage to the memory and then the

hardware device outputs the control signal after performing an operation to determine a type of

the memory; and

the recognition apparatus outputs a voltage adjustment signal after receiving the control

signal and the system power state signal, so that the voltage control circuit outputs the configured

operation voltage to the memory, wherein the system power state signal enters a low logic state

when the computer system enters a STD mode, a soft off mode or a mechanical power off mode,

and the recognition apparatus receives the system power state signal and then drives the voltage

control circuit to output the preset voltage to the memory.

Claim 9. (original) The motherboard according to claim 8, wherein the hardware device

comprises a central process unit executing a software program to generate the control signal.

Claim 10. (original) The motherboard according to claim 8, wherein the voltage

adjustment signal is configured as a high logic state when the system power state signal is a low

logic state; the voltage adjustment signal is configured as a low logic state when the control

signal to be converted from the low logic state to the high logic state and the system power state

signal is the high logic state; and the voltage adjustment signal otherwise remains a previous

logic state.

Claim 11. (original) The motherboard according to claim 10, wherein the recognition

apparatus further comprises:

an inverter, having an input terminal and an output terminal, wherein the input terminal is coupled to the control signal; and

a D-flip-flop, comprising a data terminal, a clock terminal, a clear terminal, an inverted output terminal and a preset terminal, wherein the data terminal is coupled to the output terminal of the inverter, the clock terminal is coupled to the control signal, the clear terminal is coupled to the system power state signal, the inverted output terminal is coupled to the voltage adjustment signal, and the preset terminal is coupled to a specific voltage; wherein

when the clear terminal is the low logic state, the inverted output terminal is configured to the high logic state, when the clear terminal is the high logic state and the clock terminal is converted from the low logic state to the high logic state the inverted output terminal is configured to the low logic state, and the inverted output terminal is otherwise maintained at the previous logic state.

Claim 12. (original) The motherboard according to claim 11, wherein the D-flip-flop comprises an RS D-flip-flop.

Claim 13. (original) The motherboard according to claim 8, wherein the operation comprises an access operation.